

FIG. 1

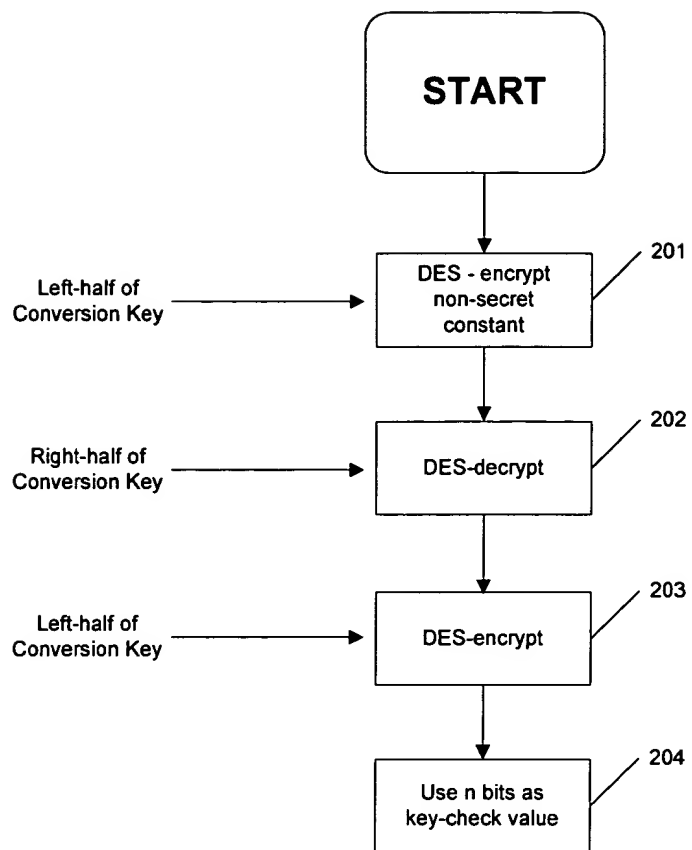
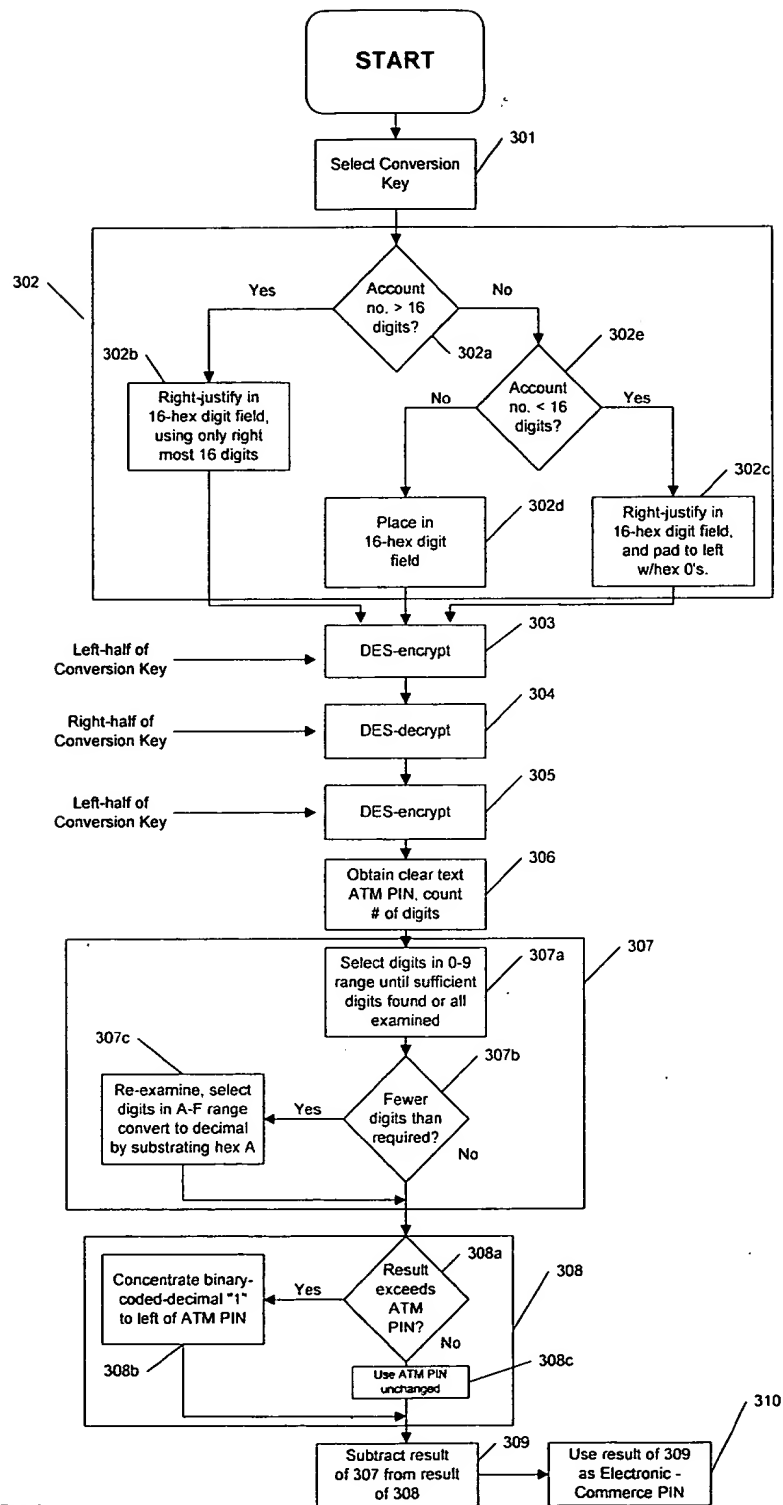


FIG. 2

FIG. 3



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graph TD
    START([START]) --> 401[Derive or select Conversion Key]
    401 --> 402a{Account no. > 16 digits?}
    402a -- Yes --> 402b[Right-justify in 16-hex digit field, using only right most 16 digits]
    402a -- No --> 402e{Account no. < 15 digits?}
    402e -- Yes --> 402f[Right-justify in 16-hex digit field, and pad to left w/hex 0's.]
    402e -- No --> 402d[Place in 16-hex digit field]
    402b --> 403[DES-encrypt]
    402d --> 403
    402f --> 403
    LHK[Left-half of Conversion Key] --> 403
    403 --> 404[DES-decrypt]
    RHK[Right-half of Conversion Key] --> 404
    404 --> 405[DES-encrypt]
    LHK --> 405
    405 --> 406[Decrypt unverified E-C PIN & count # of digits]
    406 --> 407a[Select digits in 0-9 range until sufficient digits found or all examined]
    407a --> 407b{Fewer digits than required?}
    407b -- Yes --> 407c[Re-examine, select digits in A-F range convert to decimal by substrating hex A]
    407c --> 407a
    407b -- No --> 408[Add result of 407 to Unverified E-C PIN, ignore carry from most signif. digs.]
    408 --> 409[Encrypt for transmission to issuer]
  
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FIG. 4